STEPHEN W. COLEMAN
ENVIRONMENTAL CONSULTING, LLC

Environmental Planning & Site Analysis
Wetland Mitigation & Restoration Plans
Wetland Delineation & Assessment
Natural Resource Management
Pond & Lake Management
Wildlife & Plant Surveys
Breeding Bird Surveys
Landscape Design

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DEC 16 2015
Town of Ossining
Building & Planning Department

MEMORANDUM

To: Ms. Ingrid Richards, Chairperson
Town of Ossining Planning Board
Members of the Planning Board
From: Stephen W. Coleman
Re: Artis Senior Living, LLC, 553 North State Road, Briarcliff Manor, Town of Ossining - review of revised plans, application materials and plans, potential wetland impacts and recommended mitigation measures
Date: December 14, 2015
cc: D.Stolman, FPCA

Materials Reviewed:

- Site Plans for Artis Senior Living, Sheets 1-9, as prepared by Kellard Sessions Consulting, P.C., dated last revised 11-09-2015.
- Letter to Planning Board from Brian Hildenbrand, P.E., dated 11-09-2015, re: Artis Senior Living.
- Narrative Report for the Environmental Assessment of Artis Senior Living, and Long Environmental Assessment Form, dated last revised 11-09-2015, as prepared by Kellard Sessions Consulting, P.C.
- Letter to Planning Board from Donna Sharrett, received via email dated 12-11-15.

As per the request of the Planning Board, I have reviewed the above revised submissions and offer the following additional comments in bold text:

Artis Senior Living Site Development Plans: - Wetland Mitigation Plan:

I have reviewed the proposed Wetland Mitigation Plan, dated last revised November 09, 2015. The applicant has addressed the majority of my recommendations that were outlined in my prior wetland review memos. For your information, here is what was previously recommended and my outstanding comments are in bold text:

"There are several mitigation measures that would improve the current functional value of the adjacent wetland and the watercourse channel, and there associated buffer areas". The following measures are recommended:

- The entire berm along the rear property line should be cleared of all invasive plant materials, and the slope re-stabilized. The soils on the berm should be treated to assist with elimination of invasive plant seed stock and roots that are within the berm. After treatment, new soil should be brought in to cap the berm and the entire surface area re-planted with a combination of native shrubs and ground covers. The re-creation of a

naturally vegetated berm along the edge of the wetland would create more functional habitat and serve to minimize the spread of invasive plant species.

- **The proposed wetland mitigation plan should be revised to include monitoring for a five (5) year period, instead of the 3 years indicated. Ongoing monitoring for a minimum of 5 years is recommended to guarantee long-term success of the mitigation plantings. The plans should reference the 5-year maintenance and monitoring plan to be prepared.**

- As discussed, the herbicide treatment should consist of cutting the plants at the base and then an injection into the root system to maximize the effectiveness of the glyphosate treatment. Although chemical treatment is recommended for several seasons, the combination of removal of existing soils, re-grading, the addition of new soil, along with an initial chemical treatment, and then immediate planting with a dense shrub layer, and a conservation seed mix, should allow the new plantings to successfully compete with the remaining invasive seed stock that will likely regenerate.

- Although, the forested wetland is not regulated by Chapter 105, it is recommended that the wetland be considered as part of the project's buffer mitigation measures.

  - The applicant should seek permission from the adjoining landowners along the rear property line to remove invasive plant species that are located along the edge of the wetland. Once removed, the area could be re-planted with native shrubs and ground covers to help protect and improve the edge habitat along the forested wetland. This unregulated wetland area does provide hydrological support for the intermittent watercourse, and removal of invasives and re-planting with native species would help off-set the permanent loss of the 50 foot buffer area that is located on the subject parcel.

  - The wetland mitigation plan shows proposed plantings along the edge of the wetland. The applicant should confirm whether they have made arrangements with the adjoining neighbors to allow work on private property. The wetland area extends onto two separate tax parcels.

    - **No additional information has been provided regarding the plans for off-site mitigation on neighbor's properties.**

    - **Based upon a phone discussion with the applicant's engineering consultant, no effort has currently been made to seek permission from the adjoining landowners regarding the request to provide some off-site restoration of the adjacent wetland/watercourse areas. (The recommendation was to provide some additional mitigation in the form of wetland restoration, via removal of invasive plants and re-planting with native shrubs). Application within the same watershed is usually preferred.**

- **If permission cannot be obtained, I would recommend that the Planning Board consider an alternative off-site location to apply wetland mitigation. This could be a Town-owned wetland area that is in need of some restoration and enhancement. The amount of restoration should be based upon the square footage of the proposed off-site wetland restoration efforts.**

- **It may be advisable for the Planning Board to request the applicant to provide an off-site alternative that would address the proposed wetland restoration efforts and have this plan be considered as part of the approved plans.**

- The proposed wetland mitigation strategy should focus on invasive plant removal on the property owned by 557 North State Road LLC, where the concentration of invasive plants is well established. Once invasive plants are removed, the area should be re-planted with the recommended shrub species and over-seeded with a wetland conservation seed mix.

- Notes should be added to the plan that shows "general re-planting areas" that will be re-planted after invasive plants have been removed. It is recommended that the actual location of mitigation plantings be field determined by the applicant's wetlands consultant in order to place new plantings within the best locations, and to minimize any disturbance to existing native plant species that are present.

  - **This note should be added to the Wetland Mitigation Plan.**

- The entire watercourse channel including the bottom should be stabilized with stone rip-rap along the banks. This would reduce the amount of sediment transport and keep the banks of the watercourse channel from eroding.

  - The proposed stream stabilization as proposed is over-engineered and does not require as much stabilization as shown on the proposed mitigation plan. The proposed stabilization measures should be revised to be done by hand equipment and create more of a natural stone stabilization. This would involve the placement of scattered stone on the base of the channel and the addition of two stone check dams with voids across the intermittent watercourse channel. The modest stabilization approach will assist with reducing potential scouring of the watercourse channel, and encourage better infiltration of runoff during low flow storm events.

    - **The plans have been revised and now show stone check dams within the channel and the placement of scattered stone on the base of the channel. No additional information is required.**

Additional Comments:

- The proposed western headwall shown on the plan will be removed and no drainage will be discharged onto the adjacent parcel to the rear.
    - **The headwall has been removed and a note added to the Wetland Mitigation Plan that no discharge of stormwater will enter the offsite wetland/watercourse to the west. No additional information is required.**
- As discussed with the applicant, temporary deer fencing should be installed around the perimeter of the proposed wetland and wetland buffer mitigation plantings. The temporary deer fence should remain in place for the duration of the recommended 5-year maintenance and monitoring period.
    - **The temporary deer fencing should be added to the Wetland Mitigation Plan and notes provided that will remain for 5 year monitoring period.**
- A five-year wetland maintenance and monitoring plan should be prepared that follows recommended protocols for maintaining and evaluating the success of mitigation measures. A sample plan if needed could be provided to the applicant's consultants.
    - **This has not been provided. The applicant should submit a 5 year maintenance and monitoring plan for review.**

This completes my additional review and recommendations regarding the proposed application and planned wetland impacts. Please let me know if you have questions or require additional information.